

Amendments to and Listing of the Claims:

Please cancel claims 1 and 2 and amend claims 3, 4, and 51-58 so that the claims read as follows:

1-2. (canceled)

3. (currently amended) An alloy thermal fuse comprising a thermal fuse element and a flux applied to the thermal fuse element, wherein the thermal fuse element comprises a material having an alloy composition in which In is 15 wt % or larger and smaller than 37 wt %, Sn is 5 wt % or larger and 28 wt % or smaller, and balance Bi, and in which, with respect to each of reference points of ternary Bi-In-Sn eutectic points of 57.5 wt %Bi-25.2 wt %In-17.3 wt %Sn and 54.0 wt %Bi-29.7 wt %In-16.3 wt %Sn, a range of ± 2 wt %Bi, ± 1 wt %In, and ± 1 wt %Sn is excluded, and wherein the alloy composition does not intentionally contain Pb or Cd ~~wherein a material for a thermal fuse element of claim 1 is used as a fuse element.~~

4. (currently amended) An alloy thermal fuse comprising a thermal fuse element and a flux applied to the thermal fuse element, wherein the thermal fuse element comprises a material having an alloy composition in which In is 15 wt % or larger and smaller than 37 wt %, Sn is 5 wt % or larger and 28 wt % or smaller, and balance Bi, and in which, with respect to each of reference points of ternary Bi-In-Sn eutectic points of 57.5 wt %Bi-25.2 wt %In-17.3 wt %Sn and 54.0 wt %Bi-29.7 wt %In-16.3 wt %Sn, a range of ± 2 wt %Bi, ± 1 wt %In, and ± 1 wt %Sn is excluded, and wherein the alloy composition does not intentionally contain Pb or Cd, and wherein 0.1 to 3.5 weight parts of one, or two or more elements selected from the group consisting of Ag, Au, Cu, Ni, Pd, Pt, Sb, Ga, and Ge are added to 100 weight parts of the alloy composition ~~wherein a material for a thermal fuse element of claim 2 is used as a fuse element.~~

5. (previously presented) An alloy thermal fuse according to claim 3, wherein said fuse element contains inevitable impurities.

6. (previously presented) An alloy thermal fuse according to claim 4, wherein said fuse element contains inevitable impurities.

7. (previously presented) An alloy thermal fuse according to claim 3, wherein said fuse element is connected between lead conductors, and at least a portion of each of said lead

conductors which is bonded to said fuse element is covered with a Sn or Ag film.

8. (previously presented) An alloy thermal fuse according to claim 4, wherein said fuse element is connected between lead conductors, and at least a portion of each of said lead conductors which is bonded to said fuse element is covered with a Sn or Ag film.

9. (previously presented) An alloy thermal fuse according to claim 5, wherein said fuse element is connected between lead conductors, and at least a portion of each of said lead conductors which is bonded to said fuse element is covered with a Sn or Ag film.

10. (previously presented) An alloy thermal fuse according to claim 6, wherein said fuse element is connected between lead conductors, and at least a portion of each of said lead conductors which is bonded to said fuse element is covered with a Sn or Ag film.

11. (withdrawn-previously presented) An alloy thermal fuse according to claim 3, wherein a pair of film electrodes are formed on a substrate by printing conductive paste containing metal particles and a binder, said fuse element is connected between said film electrodes, and said metal particles are made of a material selected from the group consisting of Ag, Ag-Pd, Ag-Pt, Au, Ni, and Cu.

12. (withdrawn-previously presented) An alloy thermal fuse according to claim 4, wherein a pair of film electrodes are formed on a substrate by printing conductive paste containing metal particles and a binder, said fuse element is connected between said film electrodes, and said metal particles are made of a material selected from the group consisting of Ag, Ag-Pd, Ag-Pt, Au, Ni, and Cu.

13. (withdrawn-previously presented) An alloy thermal fuse according to claim 5, wherein a pair of film electrodes are formed on a substrate by printing conductive paste containing metal particles and a binder, said fuse element is connected between said film electrodes, and said metal particles are made of a material selected from the group consisting of Ag, Ag-Pd, Ag-Pt, Au, Ni, and Cu.

14. (withdrawn-previously presented) An alloy thermal fuse according to claim 6, wherein a pair of film electrodes are formed on a substrate by printing conductive paste containing metal particles and a binder, said fuse element is connected between said film

electrodes, and said metal particles are made of a material selected from the group consisting of Ag, Ag-Pd, Ag-Pt, Au, Ni, and Cu.

15. (previously presented)An alloy thermal fuse according to claim 3, wherein a heating element for fusing off said fuse element is additionally disposed.

16. (previously presented)An alloy thermal fuse according to claim 4, wherein a heating element for fusing off said fuse element is additionally disposed.

17. (previously presented)An alloy thermal fuse according to claim 5, wherein a heating element for fusing off said fuse element is additionally disposed.

18. (previously presented)An alloy thermal fuse according to claim 6, wherein a heating element for fusing off said fuse element is additionally disposed.

19. (previously presented)An alloy thermal fuse according to claim 7, wherein a heating element for fusing off said fuse element is additionally disposed.

20. (previously presented)An alloy thermal fuse according to claim 8, wherein a heating element for fusing off said fuse element is additionally disposed.

21. (previously presented)An alloy thermal fuse according to claim 9, wherein a heating element for fusing off said fuse element is additionally disposed.

22. (previously presented)An alloy thermal fuse according to claim 10, wherein a heating element for fusing off said fuse element is additionally disposed.

23. (withdrawn-previously presented)An alloy thermal fuse according to claim 11, wherein a heating element for fusing off said fuse element is additionally disposed.

24. (withdrawn-previously presented)An alloy thermal fuse according to claim 12, wherein a heating element for fusing off said fuse element is additionally disposed.

25. (withdrawn-previously presented)An alloy thermal fuse according to claim 13, wherein a heating element for fusing off said fuse element is additionally disposed.

26. (withdrawn-previously presented)An alloy thermal fuse according to claim 14, wherein a heating element for fusing off said fuse element is additionally disposed.

27. (withdrawn-previously presented)An alloy thermal fuse according to claim 3, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

28. (withdrawn-previously presented)An alloy thermal fuse according to claim 4, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

29. (withdrawn-previously presented)An alloy thermal fuse according to claim 5, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

30. (withdrawn-previously presented)An alloy thermal fuse according to claim 6, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

31. (withdrawn-previously presented)An alloy thermal fuse according to claim 7, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

32. (withdrawn-previously presented)An alloy thermal fuse according to claim 8, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

33. (withdrawn-previously presented)An alloy thermal fuse according to claim 9, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

34. (withdrawn-previously presented)An alloy thermal fuse according to claim 10, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

35. (withdrawn-previously presented)An alloy thermal fuse according to claim 11, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

36. (withdrawn-previously presented)An alloy thermal fuse according to claim 12, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

37. (withdrawn-previously presented)An alloy thermal fuse according to claim 13, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

38. (withdrawn-previously presented)An alloy thermal fuse according to claim 14, wherein said fuse element connected between a pair of lead conductors is sandwiched between insulating films.

39. (withdrawn-previously presented)An alloy thermal fuse according to claim 3, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

40. (withdrawn-previously presented)An alloy thermal fuse according to claim 4, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

41. (withdrawn-previously presented)An alloy thermal fuse according to claim 5, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

42. (withdrawn-previously presented)An alloy thermal fuse according to claim 6, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

43. (withdrawn-previously presented)An alloy thermal fuse according to claim 7, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of

said insulating plate is covered with an insulating material.

44. (withdrawn-previously presented) An alloy thermal fuse according to claim 8, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

45. (withdrawn-previously presented) An alloy thermal fuse according to claim 9, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

46. (withdrawn-previously presented) An alloy thermal fuse according to claim 10, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

47. (withdrawn-previously presented) An alloy thermal fuse according to claim 11, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

48. (withdrawn-previously presented) An alloy thermal fuse according to claim 12, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

49. (withdrawn-previously presented) An alloy thermal fuse according to claim 13, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said other face of said insulating plate is covered with an insulating material.

50. (withdrawn-previously presented) An alloy thermal fuse according to claim 14, wherein a pair of lead conductors are partly exposed from one face of an insulating plate to another face, said fuse element is connected to said lead conductor exposed portions, and said

other face of said insulating plate is covered with an insulating material.

51. (currently amended) An alloy thermal fuse according to claim 3, wherein lead conductors are bonded to ends of said flux-applied fuse element, ~~respectively, a flux is applied to said fuse element~~, said flux-applied fuse element is passed through a cylindrical case, gaps between ends of said cylindrical case and said lead conductors are sealingly closed, ends of said lead conductors have a disk-like shape, and ends of said fuse element are bonded to front faces of said disks.

52. (currently amended) An alloy thermal fuse according to claim 4, wherein lead conductors are bonded to ends of said flux-applied fuse element, ~~respectively, a flux is applied to said fuse element~~, said flux-applied fuse element is passed through a cylindrical case, gaps between ends of said cylindrical case and said lead conductors are sealingly closed, ends of said lead conductors have a disk-like shape, and ends of said fuse element are bonded to front faces of said disks.

53. (currently amended) An alloy thermal fuse according to claim 5, wherein lead conductors are bonded to ends of said flux-applied fuse element, ~~respectively, a flux is applied to said fuse element~~, said flux-applied fuse element is passed through a cylindrical case, gaps between ends of said cylindrical case and said lead conductors are sealingly closed, ends of said lead conductors have a disk-like shape, and ends of said fuse element are bonded to front faces of said disks.

54. (currently amended) An alloy thermal fuse according to claim 6, wherein lead conductors are bonded to ends of said flux-applied fuse element, ~~respectively, a flux is applied to said fuse element~~, said flux-applied fuse element is passed through a cylindrical case, gaps between ends of said cylindrical case and said lead conductors are sealingly closed, ends of said lead conductors have a disk-like shape, and ends of said fuse element are bonded to front faces of said disks.

55. (currently amended) An alloy thermal fuse according to claim 7, wherein lead conductors are bonded to ends of said flux-applied fuse element, ~~respectively, a flux is applied to said fuse element~~, said flux-applied fuse element is passed through a cylindrical case, gaps between ends of said cylindrical case and said lead conductors are sealingly closed, ends of said

lead conductors have a disk-like shape, and ends of said fuse element are bonded to front faces of said disks.

56. (currently amended) An alloy thermal fuse according to claim 8, wherein lead conductors are bonded to ends of said flux-applied fuse element, ~~respectively, a flux is applied to said fuse element,~~ said flux-applied fuse element is passed through a cylindrical case, gaps between ends of said cylindrical case and said lead conductors are sealingly closed, ends of said lead conductors have a disk-like shape, and ends of said fuse element are bonded to front faces of said disks.

57. (currently amended) An alloy thermal fuse according to claim 9, wherein lead conductors are bonded to ends of said flux-applied fuse element, ~~respectively, a flux is applied to said fuse element,~~ said flux-applied fuse element is passed through a cylindrical case, gaps between ends of said cylindrical case and said lead conductors are sealingly closed, ends of said lead conductors have a disk-like shape, and ends of said fuse element are bonded to front faces of said disks.

58. (currently amended) An alloy thermal fuse according to claim 10, wherein lead conductors are bonded to ends of said flux-applied fuse element, ~~respectively, a flux is applied to said fuse element,~~ said flux-applied fuse element is passed through a cylindrical case, gaps between ends of said cylindrical case and said lead conductors are sealingly closed, ends of said lead conductors have a disk-like shape, and ends of said fuse element are bonded to front faces of said disks.